(1) Is an International Standard for screw threads desirable?

(2) What is the best system in use?

(3) Which would give the least trouble to universally adopt?

It would seem that the answers to these would pretty nearly solve the problem so far as America was concerned, and an affirmative answer to number one will hardly be contested.

Regarding number two, those who have had extensive experience in threads of all kinds will unhesitatingly say the "American," meaning thereby the United States Standard for coarse pitches, the S. A. E. standard for fine pitches, and the A. S. M. E. for screws smaller than the first two provide for, is the best.

All things considered, the 60 degree thread is the best and easiest to produce and verify.

The truncation of the triangle to ⅛ of the pitch is satisfactory for both making and functioning. In fact, it is so satisfactory for all purposes that it is as well known and as much used in Canada as in the United States. This in itself speaks wonders for it, as Canada naturally inherited to some extent the Whitworth system from her Mother Country and supplanted it with that of a neighbor. When Canada got to making munitions for Great Britain with Whitworth threads, there was considerable trouble and they could not understand why anyone could stick to such a system when there was one so easy to make in comparison.

The French, when trying to standardize, adopted the 60 degree thread flatted top and bottom to ⅛ of the pitch, thereby concurring in its merit.

The answer to number three is best stated by saying that conferences in England developed the fact that 70 per cent of the screw thread product of the world was made to inch measurements. 55 per cent of the world's screw thread product was made to the American standard, while 15 per cent was Whitworth. All other systems, including the metric threads, made up the balance, or 30 per cent.

Therefore, one-half of the screw thread product of the world does not need changing if the American standard is adopted. Saying it another way, if any other system became the standard, this 50 per cent and either the 15 per cent or the 30 per cent additional would have to be changed to suit a very small minority.

What is more important, there is easily three times as much screw thread product in stock made to American standards as all the rest put together, and it would be nothing short of a crime to try to force any other system into use which would sacrifice this stock. It is believed that the Standards proposed by the National Screw Thread Commission will enable practically all the American threads to be used and for all loose and medium fits, those of the Whitworth system as well, excepting one size and pitch.

If England set the tolerance on the angle towards 60 degrees and America set it towards 55 degrees, the majority of work will go together and function properly, as the rounded crest and root play no part in the fit and a space is provided for it.

The only other system in enough use to mention as a possibility, is the French Internationale, and all it has to recommend it is the 60 degree thread with ⅛ of the pitch flattened. The diameters and pitches do not conform to anything else in the world and could never interchange with the American threads.

The fundamental basis of the system of pitches is built upon an ideal which is impracticable, viz.: the pitch is in millimeters from the center of one thread to the center of the next, and six to ten times this pitch is the diameter of the screw. This offers no advantage and many mechanics think it has a good many drawbacks.

The National Screw Thread Commission suggested to the French Commission that there might be a reconcilliation of pitches if a new unit of length is named which would have the value of 5 inches and 127 m/m. Then by multiplying the present American and English pitches by five and calling it the pitch in turns per the new unit of length, it offered a means of interchangeability if the French would make their pitches the same number of turns per 127 m/m, which, of course, means they would be identical. The French diameters would then become fractional millimeter sizes to interchange with American and English standards. It was pointed out that this would be the least hardship because of the great amount of screw thread product in stock in America and England.

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